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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/960,503	09/24/2001	Takayuki Shimizu	1614.1192	7233
21171	7590	12/29/2005	EXAMINER PHAN, HANH	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			ART UNIT 2638	PAPER NUMBER

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/960,503	<b>Applicant(s)</b> SHIMIZU, TAKAYUKI	
	<b>Examiner</b> Hanh Phan	<b>Art Unit</b> 2638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,6 and 8-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 6 is/are allowed.
- 6) ☒ Claim(s) 8-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This Office Action is responsive to the RCE filed on 11/28/2005.

#### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Drawings***

3. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 8 is rejected under 35 U.S.C. 102(e) as being anticipated by Milton et al (US Patent No. 6,084,694).

Regarding claim 8, referring to Figure 3, Milton teaches an apparatus comprising:

a multiplexing unit (i.e., optical multiplexer 11, Fig. 3) that receives a first plurality of wavelength division multiplexed optical client signals as a WDM signal (i.e., a first plurality of wavelength division multiplexed optical client signals as a WDM signal 13, Fig. 3), and individually receives at least one other optical client signal provided to the multiplexing unit through at least one transponder (i.e., electro-optic converters 14, Fig. 3), and that wavelength division multiplexes together the received WDM signal and the individually received at least one other optical client signal, to thereby output a wavelength division multiplexed light which comprises the first plurality of optical client signals and the individually received at least one other optical client signal (col. 4, lines 60-67 and col. 5, lines 1-35);

a separating unit (i.e., demultiplexer 10, Fig. 3) that receives a wavelength division multiplexed signal comprising a second plurality of optical client signals and a third plurality of optical client signals, separates the second plurality of optical client signals from the third plurality of optical client signals (i.e., the second plurality of optical client signals such as WDM signal 13 the third plurality of optical client signals such as

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optical signals 12, Fig. 3), while keeping wavelengths of the second plurality of optical client signals multiplexed together,

wherein the separating unit (i.e., demultiplexer 10, Fig. 3) transmits the separated second plurality of optical client signals to a place which is different from where the third plurality of optical client is transmitted, while keeping the wavelengths of the second plurality of optical client signals multiplexed (col. 4, lines 60-67 and col. 5, lines 1-35).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Milton et al (US Patent No. 6,084,694) in view of Toyohara (US Patent No. 6,271,948).

Regarding claim 9, Milton differs from claim 9 in that he fails to teach an amplifier collectively optically amplifying the plurality of wavelength division multiplexed optical client signals as the WDM signal before the WDM signal is received by the multiplexing unit. However, Toyohara in US Patent No. 6,271,948 teaches an amplifier collectively optically amplifying the plurality of wavelength division multiplexed optical client signals as the WDM signal before the WDM signal is received by the multiplexing unit (Fig. 3, col. 3, lines 25-52). Therefore, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the amplifier collectively optically

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amplifying the plurality of wavelength division multiplexed optical client signals as the WDM signal before the WDM signal is received by the multiplexing unit as taught by Toyohara in the system of Milton. One of ordinary skill in the art would have been motivated to do this since Toyohara suggests in column 3, lines 25-52 using such the amplifier collectively optically amplifying the plurality of wavelength division multiplexed optical client signals as the WDM signal before the WDM signal is received by the multiplexing unit has advantage of allowing compensating for losses introduced by the transmission fiber and increasing the power level of the signal to a desired level.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Milton et al (US Patent No. 6,084,694) in view of Zhou et al (US Patent No. 6,445,850).

Regarding claim 10, Milton differs from claim 10 in that he fails to teach a compensator that collectively optically compensates dispersion of the plurality of wavelength division multiplexed optical client signals as the WDM signal before the WDM signal is received by the multiplexing unit. However, Zhou in US Patent No. 6,445,850 teaches a compensator that collectively optically compensates dispersion of the plurality of wavelength division multiplexed optical client signals as the WDM signal before the WDM signal is received by the multiplexing unit (Figs. 2c, col. 9, lines 25-50). Therefore, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the compensator that collectively optically compensates dispersion of the plurality of wavelength division multiplexed optical client signals as the WDM signal before the WDM signal is received by the multiplexing unit

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as taught by Zhou in the system of Milton. One of ordinary skill in the art would have been motivated to do this since Zhou suggests in col. 9, lines 25-50 using such the compensator that collectively optically compensates dispersion of the plurality of wavelength division multiplexed optical client signals as the WDM signal before the WDM signal is received by the multiplexing unit has advantage of allowing compensating the dispersion of the optical signals.

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Milton et al (US Patent No. 6,084,694) in view of Toyohara (US Patent No. 6,271,948) and further in view of Zhou et al (US Patent No. 6,445,850).

Regarding claim 11, Milton as modified by Toyohara differs from claim 11 in that he fails to teach a compensator that collectively optically compensates dispersion of the plurality of wavelength division multiplexed optical client signals as the WDM signal before the WDM signal is received by the multiplexing unit. However, Zhou in US Patent No. 6,445,850 teaches a compensator that collectively optically compensates dispersion of the plurality of wavelength division multiplexed optical client signals as the WDM signal before the WDM signal is received by the multiplexing unit (Figs. 2c, col. 9, lines 25-50). Therefore, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the compensator that collectively optically compensates dispersion of the plurality of wavelength division multiplexed optical client signals as the WDM signal before the WDM signal is received by the multiplexing unit as taught by Zhou in the system of Milton modified by Toyohara. One of ordinary skill in

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the art would have been motivated to do this since Zhou suggests in col. 9, lines 25-50 using such the compensator that collectively optically compensates dispersion of the plurality of wavelength division multiplexed optical client signals as the WDM signal before the WDM signal is received by the multiplexing unit has advantage of allowing compensating the dispersion of the optical signals.

***Allowable Subject Matter***

10. Claims 1 and 6 are allowed.

***Response to Arguments***

11. Applicant's arguments with respect to claims 8-11 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (571)272-3035.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye, can be reached on (571)272-3078. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

  
**HANH PHAN**  
**PRIMARY EXAMINER**